

# UNIVERSITY OF CALIFORNIA.

## AGRICULTURAL EXPERIMENT STATION.

### BULLETIN NO. 16.

#### Entomology in the College of Agriculture.

The study of Entomology has been gradually given a place in the College of Agriculture as a matter of necessity, to meet the pressing needs of the State. Several years since, numerous inquiries from those engaged in various branches of agriculture showed the want of a more definite knowledge of insects and their habits, and of methods of combating those which are noxious. These were met as fully as could be by correspondence, and by publications in pamphlet form, or in newspapers.

In this direction have been Professor Hilgard's pamphlet on the "Phylloxera," with full illustrations, published in 1880, and the writer's contributions to the First Report of the Board of State Horticultural Commissioners, 1882. Mr. F. W. Morse, Analytical Assistant for the College of Agriculture, has for several years made a special study of the Phylloxera, and has been repeatedly employed by the Board of State Viticultural Commissioners to examine and report upon the spread of that pest in California.

The various members of the College Faculty have also, from time to time, prepared papers and addresses upon entomological subjects, for presentation before horticultural and viticultural societies and conventions, and by conversation with individuals visiting the University, or met during expeditions into the country, have done what they could to disseminate knowledge upon this important subject.

#### Instruction to Students.

Seeing the importance of a close acquaintance with insects, injurious and beneficial, to the coming farmers of California, the writer undertook, in addition to the work for which he was engaged, to give a limited course in General and Economic Entomology to students in the College of Agriculture, and such others as might wish to join the class. This was at first experimental, but it so far met the approval of the students, and of the Faculty of the University, that the study was made one of the regular requirements for Junior year in the College of Agriculture. Our experience up to this time has shown that more extended work should be done in this department by a professional entomologist.

#### Contributions Received.

The College of Agriculture acknowledges valuable aid in time past from public spirited citizens, who have contributed liberally to strengthen its entomological resources. The Ricksecker collection of several thousand specimens of beetles was purchased at a cost of \$400, donated by Capt. J. M. McDonald, of San Francisco, Mr. Matthew Cooke, of Sacramento, and Mr. Cutler Paige, of San Francisco. Considerable clerical work, etc., was paid for by

various sums given during the years 1881 and '82 by the following named gentlemen: R. B. Blowers, J. D. Stevens, A. T. Hatch, John Rock, Jas. Shinn, W. W. Smith, W. H. Jessup, M. T. Brewer & Co., and E. T. Earl.

#### Preparation for Teachers.

There is a very strong feeling growing up that some instruction in the elements of entomology should be given in our public schools. Until there is a more general understanding of the nature of insects and the ways in which they are spread from place to place, there can be little hope of that general co-operation which is essential in all successful efforts to keep them within bounds.

At the State Fruit Growers' Convention held in San Francisco in November, 1883, the following resolution was adopted:

"WHEREAS, The fruit and vine interests bid fair to become the leading industries of this State,

"Resolved, That we, in convention assembled, as representing the fruit growers of this State, do urgently and earnestly request, pray, and by right demand, the introduction into our public schools of the study of Economic Entomology."

#### Endowment of a Professorship.

The tillers of the soil are by no means the only class of our citizens who are beginning to realize the immense losses which yearly take place through the ravages of insects. Dealers in animal and vegetable products, raw or manufactured, have these tiny robbers too often brought to mind. Considering the enhanced cost of things which they attack, we may safely claim that every one is interested in the question of their control.

At the convention above mentioned the writer presented a paper upon "The Need of a General Knowledge of Insects," and proposed that the want should be met by providing the funds necessary to enable the Regents of this University to fill the Chair of Entomology, which they established several years ago. The following words were used: "We ought to have a thorough entomologist to teach entomology to our horticulturists and agriculturists generally, and to those who are to become teachers themselves, as a large number of graduates take that course." "We want the very best man that can be had, \* \* \* who is in the prime of life, so that he has many good years of valuable service to give us, and who will come here with the understanding that he is to be an instructor in entomology as his great work. \* \* \* and who will devote himself in every way to advancing entomological instruction and will act for the good of the whole State, beginning, of course, at home. \* \* \* The State has done a great deal for the University of California, and I believe it is a proper thing just at this juncture for those who specially want general information on the subject of entomology, to be used in the line of their business, to put

their hands in their pockets, and it is probably a very serious question whether it would not be the very best investment they could make, and put a few hundred, or a thousand, or five or ten thousand, according as they have been prospered, into an endowment of this chair." "I see gentlemen here who could well have afforded to have done that ten years ago." "It would have been thousands of dollars in their pockets, and I do not think they will question my figures." "I have known of their spending \$1,500 in a month, apiece, in fighting their pests, which they and their neighbors ought to have known all about, and to have stamped out in their incipiency." "Now, this is a serious matter, and I hope that you will give it the most serious consideration. \* \* \* I bring forward to you, gentlemen, a practical proposition for the good of the State, not only in future generations, but within your own time."

The proposition was strongly approved of by Prof. E. W. Hilgard of the State University, Mr. Matthew Cooke, Dr. S. F. Chapin, and others, and indorsed by vote of the convention.

The following committee was appointed to consider the proposed endowment, and to solicit contributions towards it; C. H. Dwinelle, University of California; Hon. William Johnston, Richland; Dr. S. F. Chapin, State Inspector of Fruit Pests; Matthew Cooke, Ex-chief Horticultural Officer; A. T. Hatch, Cordelia; E. J. Wickson, Editor Pacific Rural Press.

The committee estimate the sum needed at fifty thousand dollars (\$50,000), a small amount when the interests affected are considered.

Enough money has already been promised to to make a respectable nucleus, and all who are inclined to help on the good work, should report at once to some member of the committee.

C. H. DWINELLE.

Berkeley, Sept. 11, 1884.